## IAP12 Rec'd PCT/PTO 3 1 AUG 2006

FORM PTO-1390 (Modified) U.S. PATENT AND TRADEMARK OFFICE; U.S. DEPARTMENT OF COMMERCE (REV. 7-2005) TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US)

CONCERNING A SUBMISSION UNDER 35 U.S.C. 371

ATTORNEY'S DOCKET NUMBER

31725-200815

U.S. APPLICATION NO. (If known, see 37 CFR 1.5)

PCT/US2005/006638			28 February 2005 (28.02.05)	02 March 2004 (02.03.04)				
TITLE	OF II	NVENTION						
HY	DRO	GENASE DEFICIENT BACTE	RIAL STRAINS					
APPL	ICAN	T(S) FOR DO/EO/US						
MA	IER,	Robert J., et al.						
Applic	ant he	erewith submits to the United State	s Designated/Elected Office (DO/EO/US) the	e following items and other information:				
1.	$\boxtimes$	This is a FIRST submission of items concerning a submission under 35 U.S.C. 371.						
2.		This is a SECOND or SUBSEQUENT submission of items concerning a submission under 35 U.S.C. 371.						
3.		This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (24) indicated below.						
4.	$\boxtimes$	The US has been elected (Article	31).					
5.	$\boxtimes$	A copy of the International Applica	ation as filed (35 U.S.C. 371 (c)(2))					
		a.  is attached hereto (requ	ired only if not communicated by the Interna	itional Bureau).				
		b.  has been communicated	d by the International Bureau.					
		c. 🗵 is not required, as the a	pplication was filed in the United States Rece	eiving Office (RO/US).				
6		An English language translation of	f the International Application as filed (35 U.	S.C. 371(c)(2)).				
7.	` `	a.  is attached hereto.						
		b. 🗆 has been previously sub	mitted under 35 U.S.C. 154(d)(4).					
7.	$\boxtimes$	Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371 (c)(3))						
		a.   are attached hereto (rec	uired only if not communicated by the Intern	ational Bureau).				
-		b.  have been communicated by the International Bureau.						
		c. $\square$ have not been made; ho	owever, the time limit for making such amend	dments has NOT expired.				
		d. 🛛 have not been made an	d will not be made.					
8.		An English language translation of	f the amendments to the claims under PCT.	Article 19 (35 U.S.C. 371(c)(3)).				
9.	$\boxtimes$	An oath or declaration of the inve	ntor(s) (35 U.S.C. 371 (c)(4)). (Unexecu	ited)				
10.		An English language translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371 (c)(5)).						
11.		A copy of the International Prelim	inary Examination Report (PCT/IPEA/409).					
12.	$\boxtimes$	A copy of the International Search	n Report (PCT/ISA/210).					
Ite	ems 1	3 to 23 below concern documen	t(s) or information included:					
13.	$\boxtimes$	An Information Disclosure Stater	nent under 37 CFR 1.97 and 1.98.					
14.		An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.						
15.	$\boxtimes$	A FIRST preliminary amendment.						
16.		A SECOND or SUBSEQUENT preliminary amendment.						
17.		A substitute specification.						
18.	$\boxtimes$	A power of attorney and/or change of address letter.						
19.		A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821 - 1.825.						
20.		A second copy of the published International Application under 35 U.S.C. 154(d)(4).						
21.		A second copy of the English language translation of the International Application under 35 U.S.C. 154(d)(4).						
22.	$\boxtimes$	Express Mail Label No. EV	417 056 282 US					

# IAP5 Rec'd PCT/PTO 31 AUG 2006

ATTORNEY'S DOCKET NUMBER

PTO-1390 (Rev. 07-2005)
Approved for use through 3/31/2007. OMB 0651-0021
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

INTERNATIONAL APPLICATION NO.

U.S. APPLICATION NO (if known, see 37 CFR 1.5)

	10/591	<u>.20</u>	PCT/US20	05/0	06638	31725-200	815	
23. Other iter	ns or information:							
	A photocopy of the Written Opinion  A photocopy of the Relevant Statement Regarding Sequence Listing filed in connection with PCT/US2005/006638							
The following	g fees have been s	uhmitted			<del> </del>	CALCULATIONS	PTO USE	
	•				\$300	\$ \$300.00		
	ation fee (37 CFR							
If the written opinion prepared by ISA/US or the international preliminary examination repor prepared by IPEA/US indicates all claims satisfy provisions of PCT Article \$0  All other situations						\$ \$200.00		
	fee (37 CFR 1.492		rnational preliminary exar	ninati	on report			
by IPEA/US	S indicates all clair	ns satisfy	provisions of PCT Article aid on the international ap	33(1	)-(4) \$0	\$ \$100.00		
as an Interr	national Searching	Authority	/		\$100	\$100.00		
previously	communicated to t	he ÚS by	the IB		\$400			
	s				\$500	\$ \$600.00		
Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing in compliance with 37 CFR 1.821(c) or (e) or computer program listing in an electronic medium) (37 CFR 1.492(j)).  The fee is \$250 for each additional 50 sheets of paper or fraction thereof.								
Total Sheets								
- 100 =	0 /50 =		0		× \$250.00	\$ \$0.00		
			e search fee, examination of the national stage (37			\$		
CLAIMS	NUMBER F	ILED	NUMBER EXTRA		RATE			
Total claims	17	- 20 =	0	×	\$50.00	\$ \$0.00		
Independent clair		- 3=	1	x	\$200.00	\$ \$200.00		
MULTIPLE DEPE	ENDENT CLAIMS			+	\$360.00	\$ \$0.00		
SZ Applicant cla	ime emall entity et		OTAL OF ABOVE CA			\$ \$800.00		
Applicant cla	anno oman chary o					\$ \$400.00		
Processing fee of	f \$130.00 for furnis	hing the	English translation later th		months from	\$ \$400.00		
Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(i)).					\$ \$0.00			
TOTAL NATIONAL FEE =					\$ \$400.00			
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40 per property +						\$ \$0.00	<del></del>	
			TOTAL FEE	ES E	NCLOSED =	\$ \$400.00		
						Amount to be	\$	
						Amount to be	\$	

# 10/591203 AP5 Rec'd PCT/PT0 3 1 AUG 2006 PTO-1390 (Rev. 07-2005) Approved for use through 3/31/2007. OMB 0651-0021 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

a.	X	A check in the amount of \$ \$400.00 to co	over the above fees is enclosed.				
b.		Please charge my Deposit Account No.  A duplicate copy of this sheet is enclosed.	in the amount of \$	to cover the above fees.			
c.	X	·	Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment Deposit Account No. 10-0435 . A duplicate copy of this sheet is enclosed.				
d.		Fees are to be charged to a credit card. WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.					
	NOTE: Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the International Application to pending status.						
SEND ALL CORRESPONDENCE TO:							
		ON, Bradford G. ES & THORNBURG LLP	SIGNATURE  Bradford G. ADDISON	N.			
11	Sout	th Meridian Street	Diadioid G. ADDISOI				
	diana	polis, IN 46204	NAME				
03			41,486	41,486			
			REGISTRATION NUMBER				
			31 August 2006 (31.08.	06)			
			DATE				

### **BARNES & THORNBURG LLP**

IAP5 Rec'd PCT/PTO 31 AUG 2006

Indianapolis, Indiana 46204 (317) 236-1313

### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney		)
Docket:	31725-200815	)
Applicants:	Robert J. MAIER, et al.	)
Invention:	HYDROGENASE DEFICIENT BACTERIAL STRAINS	)
U.S. Serial No.:	UNKNOWN	)
International Serial No:	PCT/US2005/006638	)
International Filing Date:	February 28, 2005	)
Earliest	March 2 2004	,

### **CERTIFICATE UNDER 37 C.F.R. § 1.10**

Attention: DO/EO/US

**Box PCT** 

**Assistant Commissioner for Patents** 

Washington, D.C. 20231

Sir:

"Express Mail" Mailing Label No.:

EV 417 056 282 US

Date of Deposit:

31 August 2006 (31.08.06)

I hereby certify that this paper or fee is being deposited with the United States Postal Service's "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, Attention: DO/EO/US.

Josthar I Dohlmar

Indianapolis, IN (317) 231-7762